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## RAW SEQUENCE LISTING ERROR REPORT

The Biotechnology Systems Branch of the Scientific and Technical Information Center (STIC) detected errors when processing the following computer readable form:

Application Serial Number: 10/035,978  
Source: OLPE  
Date Processed by STIC: 8/22/02

THE ATTACHED PRINTOUT EXPLAINS DETECTED ERRORS.

PLEASE FORWARD THIS INFORMATION TO THE APPLICANT BY EITHER:

- 1) INCLUDING A COPY OF THIS PRINTOUT IN YOUR NEXT COMMUNICATION TO THE APPLICANT, WITH A NOTICE TO COMPLY or,
- 2) TELEPHONING APPLICANT AND FAXING A COPY OF THIS PRINTOUT, WITH A NOTICE TO COMPLY

FOR CRF SUBMISSION QUESTIONS, PLEASE CONTACT MARK SPENCER, 703-308-4212.

FOR SEQUENCE RULES INTERPRETATION, PLEASE CONTACT ROBERT WAX, 703-308-4216.

PATENTIN 2.1 e-mail help: [patin21help@uspto.gov](mailto:patin21help@uspto.gov) or phone 703-306-4119 (R. Wax)

PATENTIN 3.0 e-mail help: [patin3help@uspto.gov](mailto:patin3help@uspto.gov) or phone 703-306-4119 (R. Wax)

TO REDUCE ERRORED SEQUENCE LISTINGS, PLEASE USE THE **CHECKER VERSION 3.1 PROGRAM**, ACCESSIBLE THROUGH THE U.S. PATENT AND TRADEMARK OFFICE WEBSITE. SEE BELOW FOR ADDRESS:

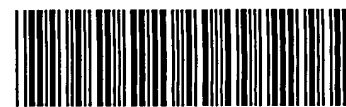
<http://www.uspto.gov/web/offices/pac/checker>

Applicants submitting genetic sequence information electronically on diskette or CD-Rom should be aware that there is a possibility that the disk/CD-Rom may have been affected by treatment given to all incoming mail.

Please consider using alternate methods of submission for the disk/CD-Rom or replacement disk/CD-Rom.

Any reply including a sequence listing in electronic form should NOT be sent to the 20231 zip code address for the United States Patent and Trademark Office, and instead should be sent via the following to the indicated addresses:

1. EFS-Bio (<<http://www.uspto.gov/efc/efs/downloads/documents.htm>> , EFS Submission User Manual - ePAVE)
2. U.S. Postal Service: U.S. Patent and Trademark Office, Box Sequence, P.O. Box 2327, Arlington, VA 22202
3. Hand Carry directly to:  
U.S. Patent and Trademark Office, Technology Center 1600, Reception Area, 7<sup>th</sup> Floor, Examiner Name, Sequence Information, Crystal Mall One, 1911 South Clark Street, Arlington, VA 22202  
Or  
U.S. Patent and Trademark Office, Box Sequence, Customer Window, Lobby, Room 1B03, Crystal Plaza Two, 2011 South Clark Place, Arlington, VA 22202
4. Federal Express, United Parcel Service, or other delivery service to: U.S. Patent and Trademark Office, Box Sequence, Room 1B03-Mailroom, Crystal Plaza Two, 2011 South Clark Place, Arlington, VA 22202



**Does Not Comply**  
**Corrected Diskette Needed**

OIPE

**RAW SEQUENCE LISTING**  
**PATENT APPLICATION: US/10/035,978**

DATE: 08/22/2002  
TIME: 12:30:31

See p. 6

Input Set : A:\INNOG2.001C1.TXT  
Output Set: N:\CRF4\08222002\J035978.raw

```

4 <110> APPLICANT: Quint, Wilhelmus
5      Van Doorn, Leendert
7 <120> TITLE OF INVENTION: PROBES, METHODS AND KITS FOR DETECTION
8      AND TYPING OF HELICOBACTER PYLORI NUCLEIC ACIDS IN
9      BIOLOGICAL SAMPLES
11 <130> FILE REFERENCE: INNOG2.001C1
13 <140> CURRENT APPLICATION NUMBER: 10/035,978
C--> 14 <141> CURRENT FILING DATE: 2002-08-16
16 <150> PRIOR APPLICATION NUMBER: 09/284,725
17 <151> PRIOR FILING DATE: 1999-04-16
19 <150> PRIOR APPLICATION NUMBER: EP 97870133.2
20 <151> PRIOR FILING DATE: 1997-09-09
22 <150> PRIOR APPLICATION NUMBER: EP 96870131.8
23 <151> PRIOR FILING DATE: 1996-10-16
25 <160> NUMBER OF SEQ ID NOS: 280
27 <170> SOFTWARE: FastSEQ for Windows Version 4.0
29 <210> SEQ ID NO: 1
30 <211> LENGTH: 20
31 <212> TYPE: DNA
32 <213> ORGANISM: Artificial Sequence
34 <220> FEATURE:
35 <223> OTHER INFORMATION: cagApro probe
37 <400> SEQUENCE: 1
38 gttgataacg ctgtcgcttc                                20
40 <210> SEQ ID NO: 2
41 <211> LENGTH: 20
42 <212> TYPE: DNA
43 <213> ORGANISM: Artificial Sequence
45 <220> FEATURE:
46 <223> OTHER INFORMATION: Pls1 vacA-derived probe
48 <400> SEQUENCE: 2
49 ggagcrttrg tcagcatcac                                20
51 <210> SEQ ID NO: 3
52 <211> LENGTH: 21
53 <212> TYPE: DNA
54 <213> ORGANISM: Artificial Sequence
56 <220> FEATURE:
57 <223> OTHER INFORMATION: P22S1a vacA-derived probe
59 <400> SEQUENCE: 3
60 gcttttagtag gagcrttrgt c                                21
62 <210> SEQ ID NO: 4
63 <211> LENGTH: 20
64 <212> TYPE: DNA

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## RAW SEQUENCE LISTING

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Input Set : A:\INNOG2.001C1.TXT

Output Set: N:\CRF4\08222002\J035978.raw

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65 <213> ORGANISM: Artificial Sequence
67 <220> FEATURE:
68 <223> OTHER INFORMATION: P1S1b vacA-derived probe
70 <400> SEQUENCE: 4
71 ggagcgttga ttagykccat
73 <210> SEQ ID NO: 5
74 <211> LENGTH: 19
75 <212> TYPE: DNA
76 <213> ORGANISM: Artificial Sequence
78 <220> FEATURE:
79 <223> OTHER INFORMATION: P2S1b vacA-derived probe
81 <400> SEQUENCE: 5
82 gtttttagcag gagcgttga
84 <210> SEQ ID NO: 6
85 <211> LENGTH: 20
86 <212> TYPE: DNA
87 <213> ORGANISM: Artificial Sequence
89 <220> FEATURE:
90 <223> OTHER INFORMATION: P1S2(VAS2) vacA-derived probe
92 <400> SEQUENCE: 6
93 gctaayacgc caaaygatcc
95 <210> SEQ ID NO: 7
96 <211> LENGTH: 20
97 <212> TYPE: DNA
98 <213> ORGANISM: Artificial Sequence
100 <220> FEATURE:
101 <223> OTHER INFORMATION: P2S2 vacA-derived probe
103 <400> SEQUENCE: 7
104 gatcccatcac acagcgagag
106 <210> SEQ ID NO: 8
107 <211> LENGTH: 19
108 <212> TYPE: DNA
109 <213> ORGANISM: Artificial Sequence
111 <220> FEATURE:
112 <223> OTHER INFORMATION: P1M1 vacA-derived probe
114 <400> SEQUENCE: 8
115 ttgatacggg taatggtgg
117 <210> SEQ ID NO: 9
118 <211> LENGTH: 20
119 <212> TYPE: DNA
120 <213> ORGANISM: Artificial Sequence
122 <220> FEATURE:
123 <223> OTHER INFORMATION: P2M1 vacA-derived probe
125 <400> SEQUENCE: 9
126 gggtaatggt gggtttcaaca
128 <210> SEQ ID NO: 10
129 <211> LENGTH: 21
130 <212> TYPE: DNA
131 <213> ORGANISM: Artificial Sequence

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RAW SEQUENCE LISTING  
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Input Set : A:\INNOG2.001C1.TXT  
Output Set: N:\CRF4\08222002\J035978.raw

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133 <220> FEATURE:
134 <223> OTHER INFORMATION: P1M2 vacA-derived probe
136 <400> SEQUENCE: 10
137 acgaatttaa gagtgaatgg c 21
139 <210> SEQ ID NO: 11
140 <211> LENGTH: 21
141 <212> TYPE: DNA
142 <213> ORGANISM: Artificial Sequence
144 <220> FEATURE:
145 <223> OTHER INFORMATION: P2M2 vacA-derived probe
147 <400> SEQUENCE: 11
148 agagcgataa cgggctaaac a 21
150 <210> SEQ ID NO: 12
151 <211> LENGTH: 24
152 <212> TYPE: DNA
153 <213> ORGANISM: Artificial Sequence
155 <220> FEATURE:
156 <223> OTHER INFORMATION: cagF primer
158 <400> SEQUENCE: 12
159 ttgaccaaca accacaaacc gaag 24
161 <210> SEQ ID NO: 13
162 <211> LENGTH: 22
163 <212> TYPE: DNA
164 <213> ORGANISM: Artificial Sequence
166 <220> FEATURE:
167 <223> OTHER INFORMATION: cagR primer
169 <400> SEQUENCE: 13
170 cttcccttaa ttgcgagatt cc 22
172 <210> SEQ ID NO: 14
173 <211> LENGTH: 20
174 <212> TYPE: DNA
175 <213> ORGANISM: Artificial Sequence
177 <220> FEATURE:
178 <223> OTHER INFORMATION: VALXR primer
180 <400> SEQUENCE: 14
181 cctgaraccg ttcctacagc 20
183 <210> SEQ ID NO: 15
184 <211> LENGTH: 20
185 <212> TYPE: DNA
186 <213> ORGANISM: Artificial Sequence
188 <220> FEATURE:
189 <223> OTHER INFORMATION: M1F primer
191 <400> SEQUENCE: 15
192 gtggatgcyc atacrgctwa 20
194 <210> SEQ ID NO: 16
195 <211> LENGTH: 20
196 <212> TYPE: DNA
197 <213> ORGANISM: Artificial Sequence
199 <220> FEATURE:

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## RAW SEQUENCE LISTING

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Output Set: N:\CRF4\08222002\J035978.raw

```

200 <223> OTHER INFORMATION: M1R primer
202 <400> SEQUENCE: 16
203 rtgagcttgt tgatattgac
205 <210> SEQ ID NO: 17
206 <211> LENGTH: 21
207 <212> TYPE: DNA
208 <213> ORGANISM: Artificial Sequence
210 <220> FEATURE:
211 <223> OTHER INFORMATION: HPMGF primer
213 <400> SEQUENCE: 17
214 cacagccact ttcaataacg a
216 <210> SEQ ID NO: 18
217 <211> LENGTH: 20
218 <212> TYPE: DNA
219 <213> ORGANISM: Artificial Sequence
221 <220> FEATURE:
222 <223> OTHER INFORMATION: HPMGR primer
224 <400> SEQUENCE: 18
225 cgtcaaaaata attccaaggg
227 <210> SEQ ID NO: 19
228 <211> LENGTH: 19
229 <212> TYPE: DNA
230 <213> ORGANISM: Artificial Sequence
232 <220> FEATURE:
233 <223> OTHER INFORMATION: cagSF primer
235 <400> SEQUENCE: 19
236 caacaaccac aaaccgaag
238 <210> SEQ ID NO: 20
239 <211> LENGTH: 21
240 <212> TYPE: DNA
241 <213> ORGANISM: Artificial Sequence
243 <220> FEATURE:
244 <223> OTHER INFORMATION: cagSR primer
246 <400> SEQUENCE: 20
247 gattggtttt tgatcaggat c
249 <210> SEQ ID NO: 21
250 <211> LENGTH: 20
251 <212> TYPE: DNA
252 <213> ORGANISM: Artificial Sequence
254 <220> FEATURE:
255 <223> OTHER INFORMATION: cagFN1 primer
257 <400> SEQUENCE: 21
258 gataagaayg atagggataa
260 <210> SEQ ID NO: 22
261 <211> LENGTH: 18
262 <212> TYPE: DNA
263 <213> ORGANISM: Artificial Sequence
265 <220> FEATURE:
266 <223> OTHER INFORMATION: cagRN1 primer

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RAW SEQUENCE LISTING  
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Input Set : A:\INNOG2.001C1.TXT  
 Output Set: N:\CRF4\08222002\J035978.raw

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268 <400> SEQUENCE: 22
269 aatactgatt ctttttgg                                18
271 <210> SEQ ID NO: 23
272 <211> LENGTH: 20
273 <212> TYPE: DNA
274 <213> ORGANISM: Artificial Sequence
276 <220> FEATURE:
277 <223> OTHER INFORMATION: VAMSFb primer
279 <400> SEQUENCE: 23
280 gtggatgccc atacggctaa                                20
282 <210> SEQ ID NO: 24
283 <211> LENGTH: 20
284 <212> TYPE: DNA
285 <213> ORGANISM: Artificial Sequence
287 <220> FEATURE:
288 <223> OTHER INFORMATION: VAMSFc primer
290 <400> SEQUENCE: 24
291 gtggatgctc atacagctwa                                20
293 <210> SEQ ID NO: 25
294 <211> LENGTH: 20
295 <212> TYPE: DNA
296 <213> ORGANISM: Artificial Sequence
298 <220> FEATURE:
299 <223> OTHER INFORMATION: VAMSFd primer
301 <400> SEQUENCE: 25
302 gtggatgccc atacgatcaa                                20
304 <210> SEQ ID NO: 26
305 <211> LENGTH: 20
306 <212> TYPE: DNA
307 <213> ORGANISM: Artificial Sequence
309 <220> FEATURE:
310 <223> OTHER INFORMATION: VAMSFe primer
312 <400> SEQUENCE: 26
313 gcgagcgctc atacggtcaa                                20
315 <210> SEQ ID NO: 27
316 <211> LENGTH: 20
317 <212> TYPE: DNA
318 <213> ORGANISM: Artificial Sequence
320 <220> FEATURE:
321 <223> OTHER INFORMATION: cagprobe3 cagA-derived probe
323 <400> SEQUENCE: 27
324 ggatttttga tcgctttatt                                20
326 <210> SEQ ID NO: 28
327 <211> LENGTH: 20
328 <212> TYPE: DNA
329 <213> ORGANISM: Artificial Sequence
331 <220> FEATURE:
332 <223> OTHER INFORMATION: P3S1 vacA-derived probe
334 <400> SEQUENCE: 28

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RAW SEQUENCE LISTING ERROR SUMMARY  
PATENT APPLICATION: US/10/035,978

DATE: 08/22/2002  
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Input Set : A:\INNOG2.001C1.TXT  
Output Set: N:\CRF4\08222002\J035978.raw

Please Note:

Use of n and/or Xaa have been detected in the Sequence Listing. Please review the Sequence Listing to ensure that a corresponding explanation is presented in the <220> to <223> fields of each sequence which presents at least one n or Xaa.

Seq#:41; N Pos. 10,30,37,58,85,112  
Seq#:53; N Pos. 87,106,107,108,109  
Seq#:55; N Pos. 87,143,165  
Seq#:56; N Pos. 26,27,82  
Seq#:59; N Pos. 27,34,53,55,76,82,160  
Seq#:63; N Pos. 143,165  
Seq#:154; N Pos. 27,34,53,55,76,82  
Seq#:169; N Pos. 82  
Seq#:175; N Pos. 26,27  
Seq#:176; N Pos. 82,101,102,103,104  
Seq#:186; N Pos. 7,27,34,55,82

Use of <220> Feature(NEW RULES):

Sequence(s) are missing the <220> Feature and associated headings.  
Use of <220> to <223> is MANDATORY if <213> ORGANISM is "Artificial Sequence" or "Unknown". Please explain source of genetic material in <220> to <223> section (See "Federal Register," 6/01/98, Vol. 63, No. 104, pp.29631-32) (Sec.1.823 of new Rules)

Seq#:41,53,55,56,59,63,154,169,175,176,186,279

## VERIFICATION SUMMARY

PATENT APPLICATION: US/10/035,978

DATE: 08/22/2002

TIME: 12:30:32

Input Set : A:\INNOG2.001C1.TXT

Output Set: N:\CRF4\08222002\J035978.raw

L:14 M:271 C: Current Filing Date differs, Replaced Current Filing Date  
L:480 M:281 W: Numeric Fields not Ordered, <221> Sort in ascending order!  
L:484 M:258 W: Mandatory Feature missing, <220> not found for SEQ ID#:41  
L:485 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:41 after pos.:0  
L:486 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:41 after pos.:60  
L:650 M:281 W: Numeric Fields not Ordered, <221> Sort in ascending order!  
L:654 M:258 W: Mandatory Feature missing, <220> not found for SEQ ID#:53  
L:656 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:53 after pos.:60  
L:681 M:281 W: Numeric Fields not Ordered, <221> Sort in ascending order!  
L:685 M:258 W: Mandatory Feature missing, <220> not found for SEQ ID#:55  
L:687 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:55 after pos.:60  
L:688 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:55 after pos.:120  
L:699 M:281 W: Numeric Fields not Ordered, <221> Sort in ascending order!  
L:703 M:258 W: Mandatory Feature missing, <220> not found for SEQ ID#:56  
L:704 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:56 after pos.:0  
L:705 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:56 after pos.:60  
L:745 M:281 W: Numeric Fields not Ordered, <221> Sort in ascending order!  
L:749 M:258 W: Mandatory Feature missing, <220> not found for SEQ ID#:59  
L:750 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:59 after pos.:0  
L:751 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:59 after pos.:60  
L:752 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:59 after pos.:120  
L:805 M:281 W: Numeric Fields not Ordered, <221> Sort in ascending order!  
L:809 M:258 W: Mandatory Feature missing, <220> not found for SEQ ID#:63  
L:812 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:63 after pos.:120  
L:2153 M:281 W: Numeric Fields not Ordered, <221> Sort in ascending order!  
L:2157 M:258 W: Mandatory Feature missing, <220> not found for SEQ ID#:154  
L:2158 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:154 after pos.:0  
L:2159 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:154 after pos.:60  
L:2337 M:281 W: Numeric Fields not Ordered, <221> Sort in ascending order!  
L:2341 M:258 W: Mandatory Feature missing, <220> not found for SEQ ID#:169  
L:2343 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:169 after pos.:60  
L:2413 M:281 W: Numeric Fields not Ordered, <221> Sort in ascending order!  
L:2417 M:258 W: Mandatory Feature missing, <220> not found for SEQ ID#:175  
L:2418 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:175 after pos.:0  
L:2429 M:281 W: Numeric Fields not Ordered, <221> Sort in ascending order!  
L:2433 M:258 W: Mandatory Feature missing, <220> not found for SEQ ID#:176  
L:2435 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:176 after pos.:60  
L:2553 M:281 W: Numeric Fields not Ordered, <221> Sort in ascending order!  
L:2557 M:258 W: Mandatory Feature missing, <220> not found for SEQ ID#:186  
L:2558 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:186 after pos.:0  
L:2559 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:186 after pos.:60  
L:3997 M:220 C: Keyword misspelled or invalid format, <213> ORGANISM for SEQ ID#:279  
L:3999 M:258 W: Mandatory Feature missing, <220> FEATURE:  
L:3999 M:258 W: Mandatory Feature missing, <223> OTHER INFORMATION: